

### **REMARKS**

Claims 1, 3 and 5-8 were examined and reported in the Office Action. Claims 1, 3 and 5-8 are rejected. Claims 1, 3 and 7 are amended. Claims 5 and 6 are cancelled. Claims 1, 3, 7 and 8 remain.

Applicant requests reconsideration of the application in view of the following remarks.

It is asserted in the Office Action that a corrected drawing sheet for Figure 4, in compliance with 37 CFR 1.121(d), is requested. In response, Applicant submits a corrected drawing ("Replacement Sheet") for Figure 4, in compliance with 37 CFR 1.121(2). Accordingly, approval is respectfully requested.

It is asserted in the Office Action that Claims 5-7 are rejected under 35 USC 112, second paragraph. Claims 1, 3 and 5-8 are rejected under 35 USC 102(e) as being anticipated by US Patent No. 7,110,540 to Rajagopal et al. In response to the above rejections, Applicant cancels Claims 5 and 6, and amends Claim 7, as shown above, to particularly point out and distinctly claim the subject matter which Applicant regards as the invention over the cited reference, and further noting, in support thereof, that the present invention is different from the prior art reference (US Patent No. 7,110,540, Rajagopal et al), Applicant explains the difference using the example:

Pattern 1 : dcaaa

Pattern 2 : aa

Pattern 3 : caac

Pattern 4 : baab

Pattern 5 : dcad

Pattern 6 : caaab

Rajagopal teaches or discloses to calculate a 2 byte hash value for 6 patterns and to generate a database (hash table) by using the calculated hash value as a key value as shown in the following table.

Key	Record
F(Checksum(aa))	Checksum(aa), Checksum(aa), aa, 2, 0
F(Checksum(ba))	Checksum(ba), Checksum(baab), baab, 4, 1
F(Checksum(dc))	Checksum(dc), Checksum(dcad), dcad, 4, 1
	Checksum(dc), Checksum(dcaaa), dcaaa, 5, 1
F(Checksum(ca))	Checksum(ca), Checksum(caac), 4, 1
	Checksum(ca), Checksum(caaab), 5, 1

Searching a pattern using this database, if a 2 byte hash value of input data is “dc”, Rajagopal teaches or discloses to search F(Checksum(dc)), and then sequentially compare 2 patterns “dcad”, “dcaaa” which are composed in the record of F(Checksum(dc)).

According to the present invention, the data structure is as follows.

aa

baab

dca 

caa 

Rajagopal teaches or discloses to search “daa” which is the same bytes as “dcad” and “dcaaa” as the hash value. Then, in order to search the remaining data “d” or “aa”, comparing the pointer which is the connected “dca” address, Rajagopal teaches or discloses to connect the patterns.

The differences between Rajagopal and the present invention in that “dcad” and “dcaaa” have the same 2 bytes hash value “dc”, however, Rajagopal sequentially compares 2 patterns “dcad”, “dcaaa” which are composed in the record of F(Checksum(dc). Therefore, Rajagopal cannot be easily implemented using high-speed hardware.

For example, if there are 100 patterns which start with the bytes “dc”, Rajagopal compare 100 patterns in the record of F(Checksum(dc).

However, the present invention compares the short part of the pattern.

In comparing, the hash value of “d” or “aa”, Rajagopal always compares the rest of the data.

The pointer of Rajagopal is just an arrangement of the patterns which have the same key value. By way of contrast, the pointer of the present invention uses connection information between divided parts of the pattern.

Rajagopal teaches or discloses to search the key value, and then search the whole pattern in the record of the key region. The present invention teaches or discloses to divide the pattern and search only the divided part of the pattern.

The position information of the key in Rajagopal is where the key is used to search the pattern. By way of contrast, the position information in the present invention connects the divided part of pattern by tracing the position at which the divided part is stored.

Accordingly, reconsideration and withdrawal of the above rejections are respectfully requested.

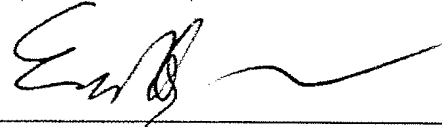
If the Examiner believes a telephone conference would be useful in moving the case forward, he is encouraged to contact the undersigned at (310) 207-3800.

If necessary, the Commissioner is hereby authorized in this, concurrent and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§1.16 or 1.17, particularly, extension of time fees.

Respectfully submitted,

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Dated: 4/6/08

  
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Linda Metz June 6, 2008